

WHAT IS CLAIMED IS:

1. Dry electrographic toner particles, comprising:
5 at least one visual enhancement additive encapsulated within an amphipathic copolymer,
wherein the amphipathic copolymer comprises one or more S portions and one or more D portions.
- 10 2. The dry electrographic toner particles according to claim 1, wherein said at least one visual enhancement additive is a pigment.
3. The dry electrographic toner particles according to claim 1, wherein said
15 amphipathic copolymer is a graft copolymer.
4. The dry electrographic toner particles according to claim 1, wherein said particle
has a volume mean particle diameter of about 1 μm to about 9 μm , and a number mean
particle diameter of about 0.1 μm to about 4 μm .
- 20 5. The dry electrographic toner particles according to claim 1, wherein said particle
has a volume mean particle diameter of about 2 μm to about 7 μm , and a number mean
particle diameter of about 0.5 μm to about 3 μm .
6. The dry electrographic toner particles according to claim 1, wherein the weight
25 ratio of amphipathic copolymer to visual enhancement additive is from about 1:1 to about
20:1.
7. The dry electrographic toner particles according to claim 1, wherein the weight
30 ratio of amphipathic copolymer to visual enhancement additive is from about 2:1 to about
10:1.

8. The dry electrographic toner particles according to claim 1, wherein the weight ratio of amphipathic copolymer to visual enhancement additive is from about 3:1 to about 6:1.

5 9. The dry electrographic toner particles according to claim 1, wherein the copolymer has a T_g calculated using the Fox equation of about 0°-100°C.

10. The dry electrographic toner particles according to claim 1, wherein the copolymer has a T_g calculated using the Fox equation of about 20°-80°C

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11. The dry electrographic toner particles according to claim 1, wherein the copolymer has a T_g calculated using the Fox equation of about 45°-75°C.

12. The dry electrographic toner particles according to claim 1, wherein the S portion
15 has a glass transition temperature calculated using the Fox equation of from about -70 to about 125°C.

13. The dry electrographic toner particles according to claim 1, wherein the S portion
20 has a glass transition temperature calculated using the Fox equation of from about 0 to about 100°C.

14. The dry electrographic toner particles according to claim 1, wherein the S portion
has a glass transition temperature calculated using the Fox equation of from about 25 to about 75°C .

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15. The dry electrographic toner particles according to claim 1, wherein the S portion of the copolymer has a T_g that is lower than the T_g of the D portion of the copolymer.

16. The dry electrographic toner particles according to claim 1, wherein at least about
30 75% of the S portion (excluding grafting site components) is derived from ingredients

selected from the group consisting of C1 to C24 (meth)acrylates, trimethyl cyclohexyl methacrylate; t-butyl methacrylate; isobornyl (meth)acrylate; and combinations thereof.

17. The dry electrographic toner particles according to claim 1, wherein said D
5 portion has a glass transition temperature calculated using the Fox equation of about 20° to about 125°C.

18. The dry electrographic toner particles according to claim 1, wherein said D
10 portion has a glass transition temperature calculated using the Fox equation of about 30° to about 85°C.

19. The dry electrographic toner particles according to claim 1, wherein said D
15 portion has a glass transition temperature calculated using the Fox equation of about 50° to about 75°C.

20. A method of making dry electrographic toner particles, comprising the steps of:
a) dispersing a visual enhancement additive in a composition comprising
solvent and S portion prepolymer;
b) conducting a dispersion polymerization by reacting D portion materials
20 with the S portion prepolymer to form an amphipathic copolymer, thereby
encapsulating the visual enhancement additive within a layer of
amphipathic copolymer to form encapsulated pigmented organosol
particles; and
c) drying the encapsulated pigmented organosol particles under conditions so
25 that the particles are at a temperature below the T_g of both the D portion
of the copolymer and the polymer as a whole.

21. The method of claim 20, further comprising blending the encapsulated pigmented
organosol particles with a toner additive prior to the drying step.

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22. The method of claim 20, further comprising blending the encapsulated pigmented organosol particles with a toner additive after the drying step.

23. The method of claim 20, further comprising dispersing a toner additive in the
5 visual enhancement additive/S portion prepolymer/solvent composition.

24. The method of claim 22, wherein the toner additive comprises at least one charge control agent.

10 25. The method of claim 20, wherein the S portion prepolymer is provided by a method comprising the steps of:

- a) providing a plurality of free radically polymerizable monomers, wherein at least one of the monomers comprises hydroxyl functionality;
- b) free radically polymerizing the monomers in a solvent to form a hydroxyl
15 functional polymer, wherein the monomers and the hydroxyl functional polymer are soluble in the solvent; and
- c) reacting a compound having NCO functionality and free radically polymerizable functionality with the hydroxyl functional polymer under conditions such that at least a portion of the NCO functionality of the
20 compound reacts with at least a portion of the hydroxyl functionality of the polymer to form one or more urethane linkages by which the compound is linked to the polymer, thereby providing a polymer with pendant free radically polymerizable functionality.

25 26. The method of claim 20, wherein the solvent is a nonaqueous liquid having a Kauri-butanol number less than 30 ml.

27. The method of claim 20, wherein the D materials comprise one or more free radically polymerizable monomers wherein the polymeric material derived from
30 ingredients comprising the one or more free radically polymerizable monomers is insoluble in the solvent.

28. The method of claim 20, wherein the weight ratio of amphipathic copolymer to visual enhancement additive is from about 1:1 to about 20:1.
29. The method of claim 20, wherein said S portion has a glass transition temperature
5 calculated using the Fox equation of from about -70 to about 125°C .
30. The product made by the process of claim 20.
31. A method of electrographically forming an image on a substrate surface,
10 comprising the steps of:
- a) providing a plurality of dry toner particles of claim 1; and
 - b) causing an image comprising the toner particles to be formed on the substrate surface.
- 15 32. A method of electrographically forming an image on a substrate surface, comprising the steps of:
- a) providing a plurality of dry toner particles of claim 1; and
 - b) causing an image comprising the toner particles to be formed on a charged surface; and
 - 20 c) transferring the image from the charged surface to the substrate surface.
33. The method of claim 32, wherein the method is an electrostatic imaging method.
34. The method of claim 32, wherein the method is an electrophotographic imaging
25 method.